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I Went to a Writing Conference and Came Home with a Math Project

Mike Pinter

Belmont University, mike.pinter@belmont.edu

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I Went to a Writing Conference and Came Home with a Math Project

enlightening Talks at Belmont
April 3, 2019



Mike Pinter
mike.pinter@Belmont.edu



Conference on College Composition and Communication (CCCC)

Dekaaz Poetry Form Variations

The possible combinations of single and multiple syllable words result in 128 possible variations.

CCCC flyer, March 2012



Dekaaz Poetry Form



The Dekaaz poetry form consists of three lines:

- exactly 2 syllables in the first line
- exactly 3 syllables in the second line, and
- exactly 5 syllables in the third line.

Each line can contain one or more words.

Dekaaz

2 3 5

Dekaaz and Haiku

Dekaaz 2 3 5

Haiku 5 7 5

Dekaaz Examples

Partners:
Poetry
and mathematics



Present.
enLighten.
Learn from each other.



Sunshine.
Spring Flowers.
Nashville in April.

Generate Your Own

Dekaaz

or

Haiku

2 3 5

5 7 5

Teaching and Learning

Your Academic Discipline

Our Verse, Our Voice

“Your creation of Dekaaz isn’t complete until you speak it out loud to another living being.”

Rachel Bagby,

Creator of dekaaz form

<http://rachelbagby.com/>

Representing Dekaaaz Variations

Present.	10
enLighten.	100
Learn from each other.	11110

Lilly.	10
Teach and learn.	111
Asheville in August.	10110

Go Forth.	
Teach Today.	
Ideas Alive.	

Representing Dekaaz Variations

Represent the syllable structure of the words in a line:

1 is the **1st syllable** in a word

0 is a **2nd or later following syllable** in the same word

For example:

10 represents a two-syllable word

100 represents a three-syllable word

10110 represents a **two-syllable word**,

followed by a **one-syllable word**,

and ending with a **two-syllable word**.

Example Dekaaaz Variations

1 1 Base two.

1 0 0 Binary.

1 1 0 1 1 One zero is two.

Create examples for these!

1 1

1 0

1 1 0

1 1 0

1 1 1 1 0

1 0 0 1 1

Dekaaz Variations

1 1

1 1 0

1 1 1 1 0

1 0

1 1 0

1 0 0 1 1

Have fun.

Write. Reflect.

See words as counting.

Explore.

Brain workout.

Recreate with math.

How Many Dekaaaz Variations ?

1st line: 1

2nd line: 1

3rd line: 1

Each of the blank slots can be either **1** or **0**.

Consequently, there are $2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 \cdot 2 = 128$
possible variations.

Dekaaz Variation: Random Generation

- Each of the three Dekaaz lines, expressed as a sequence of 1s and 0s , will begin with 1.
- The remaining 1s and 0s are determined by repeated coin tosses.



For example:

1st line: Heads

1 1

2nd line: Tails, Tails

1 0 0

3rd line: Heads, Tails, Heads, Heads

1 1 0 1 1

Dekaaz Variation: Random Generation

Example:



1st line: Heads

1 1

2nd line: Tails, Tails

1 0 0

3rd line: Heads, Tails, Heads, Heads

1 1 0 1 1

Note:

- “1” signals the beginning syllable of a word
- the number of 1s in a line indicates how many words will be in that line

Generating Dekaaaz Variations

Generate a Dekaaaz variation:

1st line: Flip coin once

1 _

2nd line: Flip coin two times

1 _ _

3rd line: Flip coin four times

1 _ _ _ _



Write a Dekaaaz that matches the variation.

A Meta-Dekaaz Example

Consider a meta-Dekaaz structure

A B
C D E
F G H I J

where each of A,B,C,D,E,F,G,H,I, and J is a Dekaaz.

This structure has a total of 30 lines and 100 syllables, with 2^{70} possible variations.

A:

Petite.
Beatrice.
Chooses a new life.

B:

Four fears.
Tobias.
Separates from pain

C:

Tested.
Jumping trains.
Aggressive. Tattoos.

D:

A plan.
Climbing high.
Capture the flag first.

E:

Danger.
Divergent.
Simulation shows.

F:

Leaders.
Gray and fair.
Trust Abnegation.

G:

Candor.
Truth tellers.
Black and white only.

H:

Happy.
Amity.
Love and joy faction.

I:

Knowledge.
Erudite.
Intellect is blind?

J:

Dauntless.
Know their fears.
Goals now distorted.

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